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R.I.T

Perception of Software Employees towards Human Resource
Development Roles, Functions, and Professionals

by

Bhagyashree Barhate

A Thesis Submitted in Partial Fulfillment of the Requirements of the
Degree of Master of Science in Human Resource Development

School of International Hospitality & Service Innovation

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Abstract

The purpose of this research was to explore the perception of employees working in the software industry towards Human Resource Development (HRD) roles, functions, and professionals. This research adopted a quantitative methodology and administered a survey to understand how the employees perceive the different HRD roles and their importance in the organization. The research also studied the different perceptions employees may have towards the HRD professionals and their competencies. The participants in this study belonged to the software industry and have been working in their current technical job roles for atleast a year. A survey was used to collect data and was designed on an online platform – Google Forms. The survey was designed in a way to include all the roles and functions described in the competency model designed by The Association of Talent Development in 2014. The participants ranked Learning and Knowledge Management as the most important HRD function. The participants also perceived that HRD professionals possess a business acumen and are capable of accommodating cultural differences in the organization. The results of the study indicated a general amiable perception towards the HRD roles, functions, and professionals.

Table of Contents

Chapter 1: Introduction	8
Chapter 2: Literature Review	13
Chapter 3: Methodology	41
Chapter 4: Results and Findings	49
Chapter 5: Conclusion and Implications	64
References	67
Appendix	76

List of Tables

Table 1 Comparative definitions of HRD over the years.	24
Table 2. Functions of HRD.....	27
Table 3. Comparison between HRM and HRD	32
Table 4. List of perception studies in the HR field	37
Table 5. Respondents experience, job role, and location by gender	51
Table 6. Using ATD areas of expertise to design the survey questions	53
Table 7. Use of ATD foundational competencies to design survey questions	59

List of Figures

Figure 1. Process phases of HRD	23
Figure 2. Model of Human Resource Development within Organization and Environment	23
Figure 3. The ATD Competency Model (2014).	28
Figure 4. Parallel between HRM and HRD	32
Figure 5. Ranking of HRD functions with respect to each other.	54
Figure 6. Perception towards HRD effectiveness	56
Figure 7. Perception towards Training effectiveness.	59
Figure 8. Perception towards HRD professional's effectiveness.	61

Chapter 1: Introduction

Background

Organizations today are moving towards pulling down the functional walls within the organization and building an open platform to increase interaction and accessibility between different departments. The employees, who are the heart of organizations, can interact through the open platforms to contribute towards their personal career development which in turn leads to organizational development. The employees need to be polished and prepared to become valuable assets who can contribute to the organization's success (McGoldrick & Stewart, 1996). Today, organizations spend a lot of their time and capital in the development of employees and human resource development (HRD) is the force behind all the employee development initiatives. The developmental activities of HRD are aimed at improving the organization's performance and its main aim is to "increase the knowledge, skills, and capacities of all people" (Harbison & Myers, 1964, p. 2). Human Resource Development (HRD) professionals act as the bridges between the different departments to bring about a functional transparency between departments to assist in employee development. They perform roles and functions of career development, training, skill development, organization development, change management, talent management, etc. Human Resource Development professionals are the advocates of change in organizations and are responsible to guide the employees towards achieving personal career goals and organizational goals.

However, when I was employed in India at a multi-national organization, I experienced that the employees may not always perceive human resource professionals to be acting on behalf of employees with the employees' interest at heart. I started my career at the multi-national as a Software Engineer after receiving a Bachelor's Degree in Computer Science and Engineering. However, due to my career aspirations in Human Resource Development, I was soon able to

shift from being a Software Engineer to a Human Resource Executive. After this transition, I experienced that my colleagues who were still employed as software engineers perceived my individual capacities based on my professional title as an HR executive. I was amused with how the change in my title and role, changed my colleague's perception towards me. After a few conversations with my colleagues, who were all software employees, I was able to find that these software employees were not satisfied with the efficiency levels of performance of the HR professionals and hence they perceived my professional capacity to have dipped because of the change in my title and role.

Secondly, I was surrounded by students pursuing technical degrees when I started my Master's degree in HRD at Rochester Institute of Technology in the United States. Whenever I met someone new with a technical background or coursework, they would be curious about my coursework in HRD. Most often I was asked if HRD was the same as HRM which led to long conversations with me explaining them about the impact of HRD in organizations. I would always wonder that as a student in HRD, I understand and realize the potential of HRD but these students with technical degrees, who make up the majority of employees in their related industry, were not even aware that HRD exists and more so that HRD is independent of HRM. And even if some of the students were aware of HRD, they had fuzzy perceptions of towards the role and functions of the HRD professionals. They believed that HRD activities were unnecessary and instead of contributing in the employee's development, valuable time is wasted in HRD activities which could have been invested in working on the time-bound software project deliverables.

These experiences made me inclined towards understanding the perception of software employees towards HRD professionals and the possible reasons behind these perceptions. When choosing a research area for my graduate thesis. I decided to focus on the perceptions of software

employees towards HRD professionals because of my close association with the industry and my personal experiences within the industry.

Research Problem

The Human Resource (HR) department is one of the most important departments in the organization and has diversified roles and functions. However, it has been reported that these roles and functions are not given the necessary credit (Alagaraja, 2013). Software organizations employ technically skilled employees who work for a specific client throughout a project. The learning and development activities of software employees are focused on continuous improvements of processes and documenting them for future reference (Agrawal & Thite, 2003; Mathiassen & Pourkomeylian, 2003; Singh, 2012).

Managing knowledge is an important factor to maintain the competitive advantage in software organizations (Singh, 2012). Performance management is the most valued HR function in this environment as it contributes to the organization effectiveness and maintaining the competitive advantage (Nankervis & Compton, 2006). However, it is not clear if the employees value these roles and functions and if they perceive them important in their development and well-being. Many researchers have discussed the role HRD professionals play in strategic alignment of human capital and organizational goals (Ruona & Gibson, 2004; HR Focus, 2005). Yet, research on perceptions of employees reports that HRD professionals do not play a strategic role in the organization's effectiveness (Alagaraja, 2013; Hamlin, 2007). This research study is focused on the software industry and the perceptions of employees specific to this industry. The literature on HRD assumes different roles and functions important and integral to HRD (Hamlin & Stewart, 2010; Swanson & Holton, 2009; Thomson & Mabey, 1994; Yang, 1994). Due to lack in clarity on the different HRD roles and functions on the levels of their importance, this research

has followed the roles and functions listed by The Association of Talent Development (2014), to develop an understanding towards its perceptions.

Even though there are studies that focus on perception of employees about generic HR functions and HRM roles, there are barely any studies that explore the perceptions of employees about HRD roles and functions. Also, there are no studies that explore the perception of employees in the software industry towards HRD roles and functions. This study is intended to bridge this gap.

Purpose Statement

The purpose of this study is to understand the perception of software employees towards HRD roles, functions, and professionals in a software organization.

Research Questions

The study explore two research questions:

1. What are the perceptions of software employees towards HRD roles and functions?
2. What are the perceptions of software employees towards HRD professionals?

This research will assist the HRD practitioners in the software industry to understand the general perceptions of employees towards them and work accordingly. By understanding the perceptions, HRD practitioners can further assist the employees in overcoming their inhibition to approach HRD department and professional and ask for assistance in the employee developmental process.

Methodology

This study used the cross-sectional survey method. The participants in this study were employed in a software industry who were selected based on their job roles as software

engineers, software architects, and other technical related roles. A self-administered survey was distributed among the employees to collect data using an online platform, Google Forms

Chapter 2: Literature Review

Introduction

According to the Bureau of Labor Statistics, the software industry employed more than 4 million people in the United States in 2015. It comprises of major occupations and roles such as Computer and Information Research Scientists, Computer Systems Analysts, Information Security Analysts, Computer Programmers, Software Developers, Systems Software, Web Developers, Database Administrators, Network and Computer Systems Administrators, Computer Network Architects, Computer User Support Specialists, and Computer Network Support Specialists (Bureau of Labor Statistics [BLS], 2015). Today the software industries are providers of tools, applications, and products; and different services such as maintenance and deployment of information systems in organizations, set-up architecture for easy data sharing between the employees, and act as a third-party to host information for its clients.

The changes in the world economics through software industries brings about changes in the organizational settings with respect to their aims, objectives, and services offered. Companies whether large or small will continue to do well in the global market if they update themselves in accordance to what the global market demands (Nmom, 2004). Any change in the organization requires upgrading skills, knowledge, and aptitudes of employees (Rice, 2002). These changes within organizations today are most effectively handled through HRD functions of training, education, and development (Nmom, 2004). However, to evaluate the effectiveness of HRD in software organizations, it is important to note how employees in this sector perceive HRD. The effectiveness of HRD may play a role in building of employee perceptions. Thus, the purpose of evaluating HRD is to assist the researchers, academicians, and practitioners to analyze their

standing in the organization which affect employee perceptions. A literature review was conducted to understand how the researchers in the past have reported the perceptions towards Human Resource Development (HRD) roles, functions, and professionals across industries such as manufacturing, software, service, and medicine. The aim of the literature review is to understand the human resource function in organizations in general and how it is an umbrella under which HRM and HRD co-exist or overlap.

The literature review covers the trends in software organizations which influences HRM and HRD practices. Further, the HRM function was understood with respect to its most important functions based on the definitions coined for HRM. The evolution of HRD as a field was studied to establish its inception in the organizations. The Association of Talent development has devised a competency model for the field of HRD, and it defines 10 areas of expertise and 6 foundational competencies. The areas of expertise were used to conduct a literature review and develop an understanding in each area as a HRD function in the organizations. The existing perception studies were reviewed to recognize the fields in which perceptions studies have been performed and establish a gap to justify the need for this research study. Articles were retrieved from journals such as Human Resource Development Quarterly, Human Resource Development Review, Advances in Developing Human Resources, Journal of European Industrial Training, The International Journal of Human Resource Management, and Human Resource Development International. The keywords used to search for articles included human resource development, human resource management, perceptions, competencies, professionals, training and development, organization development, software, and knowledge management used in different permutations and combinations using Boolean operators.

Software Industry

A software organization is referred to as knowledge driven and thrives on its employee's competencies and abilities (Mathiassen & Pourkomeylian, 2003). A software organization witnesses a team-based structure. The contributions of HRD in this type of an environment are required to be agile and dynamic (Singh, 2012). The software engineers themselves possess high levels of abstract reasoning, cognition and synthesis of data, communication and collaboration with cross-functional teams, analysis, and strategy building (Moran, 2010). These competencies while highly desired also lead the software engineers to resist traditional command and control culture. They do not deal with work related issues in their own set peculiar ways; thus loading the HRD professionals to come up with innovative means to keep these employees engaged to deliver high performance (Kinnear & Sutherland, 2000; Agrawal & Thite, 2003). It has been noted that in a software organization, the major deliverable is a software application which is customized to meet the customer's needs. The traditional method of producing the deliverable in the form of a software application is through software project management (Halloran, 1999). However, the software projects get delayed due to improper management and the deliverable is usually rolled out later than expected which leaves the customer dissatisfied (Mathiassen & Pourkomeylian, 2003). There is a need to manage projects in the organizations and it can be achieved through organizational learning and professing knowledge about project management techniques (Halloran, 1999). Thus, through active involvement of HRD professionals, approaches to optimize projects and processes can be applied to ensure customer satisfaction.

Developing the organization's human resource is a responsibility that leaders expect the HR department to take. A study of thirty Kuwaiti software organizations revealed that training and continuous development of employees was mandatory in order to meet the customer's needs

(Sajjad & Marouf, 2004). Software engineers could lack orientation if they were not guided efficiently from the beginning of their assigned job roles (Broady-Preston & Hayward, 2000). The study conducted by Broady-Preston and Hayward (2000) talks about the major changes undergone by the software industry in the United Kingdom and how managers from different organizations conclude that skill training is necessary for strategy formulation. These results reflect the need of bridging HR department and the managers to collectively make decisions in order to sustain and combat challenges through strategic partnerships. The software engineers play an important role in development and deployment of software products which assist in revenue generation (Murthy & Abeysekera, 2007). Efforts that contribute to the development of software engineers lead to indirect generation of revenue. The financial results of any organization can be increased if employees are allowed to play a dominant role in the decision making processes. Thus, the employees need to be convinced that their individual development will not only help the organization to achieve goals but also increase their value estimated in terms of employability. Improving the human capital in one organization directly impacts the knowledge-based economy which has a high demand of knowledge-based products and services (Low, 2000).

Human Resource

Employees in an organization have always found a way to develop through the years through education, training, and organizational development. People are looked at as the greatest asset for the organization in terms of the knowledge and information they share and basically their ability to run business through organizations. Talent in an organization must be managed and developed to maximize organizational effectiveness, human potentials, individuals'

capabilities, and time. Hence, as stated by Haslinda (2009), “the practice of HRM and HRD works to ensure that employees are able to meet the organization's goals” (p. 180).

Human Resource, in general, has struggled through years to establish itself as a separate department in the organization (Vosburgh, 2007). In the later twentieth century, it evolved from being known as Labor Relations, Industrial Relations, Personnel Administration/Management, Human Resource, and many other titles depending on administration of the different expectations posed by the organizations on their employees (Vosburgh, 2007). The roles of HR have diversified into strategic partner, change agent, administrative expert, and employee relations expert to meet the organizational goals (Vosburgh, 2007). As a result of this evolution, the two most prominent HR functions that prevail in the organizations today are HRM and HRD based on whether the HR professionals are performing the function of management of recruitment, talent, or payroll, or functions of individual focused development activities (Haslinda, 2009).

Human resource management. In the 19th century, industrial psychology of workers was introduced to respond to the industrial revolution and there was a subsequent rise in the need for labor which rose the demand for maximum wellbeing of the workers (Ivancevich, 2007). With the advent of technology in industries, the organizations went through a huge rise in size and production of goods and services. This led to employees working in different departments to come closer together to ensure that the management addresses their need for pay rise and welfare, resulting in the inception of ‘welfare secretaries’ who were administrators for the labor working in factories and organizations through a personnel management department (Ivancevich, 2007). The employees were given appropriate training and understanding of the working of the organization thus developing a meaningful resource in the form of people. Thus, the requirement

to manage and administer the needs of the employees, led to the transition of departments from personnel management department to human resource management (Legge, 2005).

Human Resource Management has established itself widely over the years and expanded its functional responsibilities in the organization, although there are continued debates on the functional differences between the terms personnel management and HRM (Marchington & Wilkinson, 2002; Legge, 2005). The HRM functions mainly involve Hiring, Compensation, Performance Management, Performance Appraisals, Culture development, and Strategic alignment (Hoobler & Nancy, 2004). Woodall, Scott-Jackson, Newham, and Gurney (2009) noted that HRM function is at cross-roads, as on the one hand, it has tried to establish itself as a separate department in organizations; whereas, on the other, it's most traditional functions of managing recruitment and performance are outsourced. The unavailability of competent HRM professionals or the costs associated with these functions may prompt this outsourcing.

Hiring/Recruitment/Talent acquisition. The function of employee selection starts with finding the right candidate and proceeding to conducting interviews, pre-employment screening and testing, and lastly making the job offer (Smith & Mazin, 2011). The employees are selected based on the requirement of the organization based on the job title. The position that needs to be filled can be advertised either via print or web based media, referrals, career fairs, and other search firms (Smith & Mazin, 2011). In a software industry, the employees are most commonly hired at an entry level and include recent graduates (Accenture, 2016). Some multinational companies such as Amazon, Oracle, Microsoft, Dell, SAIC, and IBM hire approximately 2000 jobs for software engineers each year respectively (Forbes, 2013).

Performance management. Chadwick and Dabu (2009), and Wright, McMahan, and McWilliams (1993) stated that HR, in an organization, is used to develop a competitive

advantage among the employees. The skills and knowledge are measured through formal performance management system. In a service based industry such as software, the challenges to develop and maintain a performance management system are higher as the HR department is not often consulted in the process (Singh, 2012). This leads to misdirected analysis of the cause, thus costing the organization in terms of time and resources (Singh, 2012). In the systems perspective, HR balances the inputs, outputs, and intermediary processes by linking the different resources to influence business processes and affect the entire organization's structure based on performance (Swanson, 1995).

Rewards and recognition. Rewards and recognition are a way of maintaining a cordial employee relationship environment in the organization (Smith & Mazin, 2011). Rewards are paid to the employees in monetary terms and recognitions are a way of appreciating employees for their valuable contributions to the organization (Smith & Mazin, 2011). Different organizations structure these programs in accordance with their culture.

In a software industry, rewards and recognition programs are most commonly designed to appreciate the employee's team effort, creativity, and project success (Mahaney & Lederer, 2006). Project failure in software program development continues to plague software organizations. According to Mahaney and Lederer (2006), a lack of intrinsic and extrinsic rewards for software program developers may be a cause of such failure.

After rigorous validation, path analysis (an extension of multiple regression that simultaneously tests more complex relationships) showed that use of intrinsic rewards predicted client satisfaction and perceived quality (but not on time and within-budget implementation success), whereas use of extrinsic rewards predicted

implementation success (but not satisfaction or quality) (Mahaney & Lederer, 2006, p. 42).

Compensation and benefits. The purpose of designing compensation and benefits plans in the organization is to provide the employees with lucrative working conditions (Smith & Mazin, 2011). It thus becomes a big challenge for the HR professionals to be competent in designing compensation plans for their employees. Human resource management professionals earn a certification on compensation by understanding the employment laws, fundamentals to employee benefits, retirement plans, and health benefit plans (Shenenberg & Smith, 1999). When employees are provided with monetary and non-monetary benefits which act as perks of working in the organization. Thus, sound compensation and benefit plans play a role in motivation and engagement levels of the employees (Smith & Mazin, 2011).

Human resource development (HRD). Human resource development and its components of training, learning, and organizational development have evolved from the social and economic conditions surrounding the organizations (Swanson & Holton, 2009). Through the history of the world, people have found different ways to gain knowledge and enhance their learning, and implement it in their workplace. Today, HRD can be referred to as a department, function, or job with the aim to progress and solve problems (Swanson & Holton, 2009). However, the conceptualization and formalization of HRD took a long time and is still affected by the environment surrounding learning and development practices. Human resource development is a comprehensive method of developing people in all walks of life. The history of HRD cannot be separated from the history of education and learning (Torraco, 2002). Nations today implement human resource development for its citizens through the continuous enrichment of laws and policies on education.

Although schools and learning institutions had been already established, historically, formalized methods of learning flourished in the twentieth century when the government became actively involved in propagating learning by establishing public schools and providing technical training to the masses to progress in the world and develop performance oriented individuals (Swanson & Torracco, 1994). During this century, the World Wars instigated the foundation of War Department Committee for Education and Special Training. Large numbers of people were required to undergo training in a short amount of time which marked a significant landmark towards the evolution of training and development (Dooley, 1945). Job aids and instructions started to get printed which made it easier for the trainees to advance in their training regimes. Cost-effective methods for mass training which also maintained high levels of quality were devised to respond to the war-time emergencies. During this time, many researchers came up with theories and models based on human relations, motivation, management, psychology, education, and training to solve problems surrounding them which shaped HRD (Swanson & Holton, 2009).

Scholarly and professional practices in human resource development were invigorated because of the multiple social and economic changes around the organization which brought about new research and conceptualization of the profession. ‘Training’ became a commonly used term during this time (Swanson & Holton, 2009). Print literature on the aspects of human resource development began in 1964 when Robert Craig published *Training and Development Handbook*. The year 1989 marked another significant landmark when the first scholarly journal to encourage scholarly research and establish HRD as a separate practitioner’s field came into being. The journal was titled – Performance Improvement Quarterly; and was followed with the establishment of another journal – Human Resource Development Quarterly in 1990 (Swanson

& Holton, 2009). The world boundaries started to fade through human resource development and education with the establishment of International Journal of Training and Development in the year 1997. Knowledge on training and developmental practices around the world were shared within this new world culture. HRD practices and policies are constantly being formed to provide organizations with the guidelines for effective performance focused operation. In the year 1945, the American Society for Training and Development (ASTD) came into being (ATD, 2016). Through academic collaborations and research, ASTD published foundational competencies required for professionals practicing training related activities. With the evolution of HRD, the terms HRD and training are being used interchangeably (Haslinda, 2009). In the later years, training was not the only function performed through HRD and thus to cater to the needs of changing organizations, ASTD renamed themselves as Association for Talent Development (ATD) in the year 2014.

Human resource development is still a young field and practitioners have been trying to define it in their own individual industries with performance and development as the key objectives of implementation. It has a problem-solving approach towards real-world problems in organizations and other settings. Swanson and Holton (2009) have identified a 5-phase process of HRD implementation in organizations and other formal or informal settings to define and solve any problems impeding effectiveness (see Figure 2). Within this HRD model, the first phase includes the analysis of the given problem at hand to understand its causes. The next phase proposes possible alternative solutions with analysis on the pros and cons of each alternative and recommending the best solution. The last three phases of implementing HRD include the creation, implementation, and assessment of the recommended solution/s.

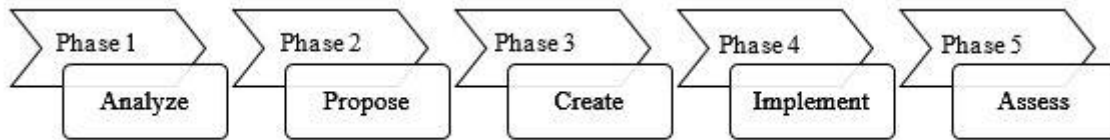


Figure 1. Process phases of HRD (Swanson & Holton, 2009, p. 24)

The environment in which HRD sustains is governed by the economic, political, and cultural forces (Swanson & Holton, 2009). This environment forces play an important role in the formation of HRD policies and processes by impacting the organizational components of mission and strategy, structure, technology, and human resources. A synergy within this environment leads to the formation of a sustainable human resource development model. The definitions of HRD have evolved based on the components such as the environment and organizations in which it is practiced (see Figure 3).

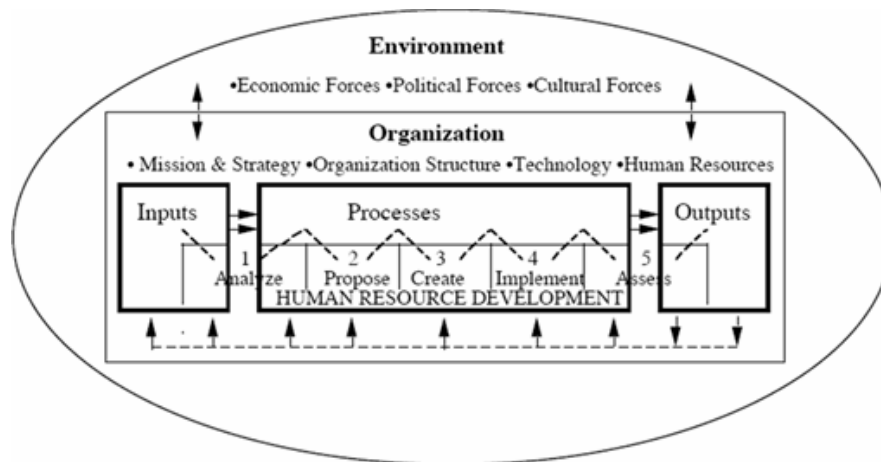


Figure 2. Model of Human Resource Development within Organization and Environment (Swanson, 2001, p. 305)

According to Mankin (2001), the three operational components of HRD are organization development, career development, and training and development. The process map of HRD and the effects of environment on HRD are crucial to define this function in an operational context. Some of the key components which govern HRD and its definitions are behavioral change, performance improvement of individuals and organizations, organizational development, training and development, learning activities, and human expertise (Chalofsky, 1990; Hamlin, 2004; Harbison & Myers, 1964; Jones, 1981; McLean & McLean, 2001; Swanson, 1987; Swanson, 1995).

A review of literature indicates a pattern of changing definitions depending on the relevance of one of the key components of the HRD functions. The definition of HRD also depends on the underlying theory on which it is built and is most commonly seen governed by the economic, psychological, and systems theory (Chalofsky, 1992; Hamlin, 2004; Harbison & Myers, 1964; Jones, 1981; McLean & McLean, 2001; Swanson, 1987; Swanson, 1995). The economic theory governing HRD dictates the utilization of resources scarce or abundant to produce results (Wang & Dobbs, 2009). The psychological theory revolves around the human cognition, mental processes, and act as determinants of human behavior (Swanson & Holton, 2009). Whereas, the systems theory is based on a more wholesome approach towards problems by keeping in mind the inputs and outputs affecting the organization (Brache, 2002). The HRD definitions over time, as noted by Swanson and Holton (2009, p. 6), highlight key components and underlying theories of HRD and can be seen changing to become more inclusive of operations and key functional roles, to produce performance based outcomes (see Table 1).

Table 1.

Comparative definitions of HRD over the years.

Adapted from Swanson and Holton (2009, p. 6)

Author	Definition
Harbison and Myers (1964)	HRD is the process of increasing the knowledge, skills, and capacities of all people in society (p. 2).
Jones (1981)	HRD is systematic expansion of people's work related abilities focused on the attainment of both organization and personal growth (p. 188).
Smith (1988)	HRD consists of programs and activities, direct and indirect, instructional and/or individual that positively affect the development of individuals and the productivity and profit of the organizations (p. 1).
Nadler and Nadler (1989)	HRD is organized learning experience provided to employees within a specified period of time to bring about the possibility of performance improvement and/or personal growth (p. 6).
Marsick and Watkins (1994)	HRD is the process or activity that, either initially or over the long term, has the potential to develop adult's work-based knowledge, expertise, production, and satisfaction whether for personal or group/team gain , or for the benefit of the organization, community, nation, or ultimately, the whole humanity (p. 355)
Swanson (2009)	HRD is the process of developing and unleashing expertise for the purpose of improving organization system, work process, team and individual performance .

This research study revolves around the functions and roles of HRD carried out in the software industry and what are the employee perceptions towards them. Thus, in this context, the most relevant definition of HRD is stated by Swanson (2009), “a process of developing and unleashing human expertise through organization development and personnel training and development for the purpose of improving performance” (as cited in Swanson & Holton, 2009, p. 8).

Human resource development, seems to have evolved to build on the foundation of people, learning, and organizations (Chalofsky, 2004). However, it is still considered to be fourth

in order of importance when it comes to strategic discussions and is placed following Accounting, Sales, and Marketing (Hamlin, 2007). Human resource development fails to secure a seat at the strategic planning table in the organization, because most managers believe that development of employees through the HRD functions such as training is an unnecessary cost (Hamlin, 2007). However, with the evolution in the role and functions of HR, the function of training and development has become an important function and can be seen as an integral part of most organizations irrespective of the relevance attained by other HRD functions (Ruona & Gibson, 2004; HR Focus, 2005). The main reason for this can be attributed to the practices and policies of the HRD professionals themselves and how they are portrayed (Alagaraja, 2013). There is a gap in the organizations where HRD professionals are failing to communicate their relevance to the employees and ensure participation in developmental activities. In a study conducted by Espedal (2005), it was concluded that supervisors and line managers in firms do not exhibit the required amount of commitment to make sure that HR professionals successfully involve all employees in their learning management activities. This poses a challenge to HR personnel as they have to take extra efforts to develop rules and regulations to ensure employee involvement.

To ensure acceptance of human resource in the organizations, a strategic approach needs to be adopted by the HR professionals. Through a strategic partnership with the organization's decision making stakeholders, HR professionals can help in building a network to impose policies and practices which ensure employee involvement and engagement (Espedal, 2005). Strategic HRD involves working with the organization's leaders and providing them support in order to derive financially beneficial results and making better decisions for the workforce (Ruona & Gibson, 2004). Through the years, different researchers have defined HRD and its

functions differently (see Table 2). The functions of training and development and organization development seem to be the most accepted HRD functions in the research through years. The table (see Table 2) represents the growth of HRD, inclusion, and diffusion of functions.

Table 2.

Functions of HRD

Thomson and Mabey (1994)	Yang (1994)	Swanson and Holton (2009)	Hamlin and Stewart (2010)
Training and Development, Organizational Development, Career Development	Training and Development, Organizational Development, Adult Learning	Training and Development, Organizational Development, Change Management	Training and Development, Organizational Development, Career Development, Organization change Mentoring, and Coaching

HRD competencies. A competency is a set of defined behaviors that provide a structured guide enabling the identification, evaluation, and development of the behaviors in individual employees (White, 1959). A competency model defines the set of competencies that professionals must possess to perform effectively and thus, the components of the competency model can be used as standardized measures of effectiveness. A review of the competency models available to define HRD effectiveness were reviewed to identify the major competencies required to perform the functions of HRD.

The 2014 ATD Competency Model is the most recent model for specifically HRD professionals. This competency model was developed to define competencies for the success of HRD professionals in organizations. This model is wholesome in its implementation and conceptualization. It includes the areas of expertise which correspond to the current organizational environments. In this research, the functions and competencies developed by ATD (2014) were used to develop an understanding of the perceptions of employees towards them based on their relevance and importance.

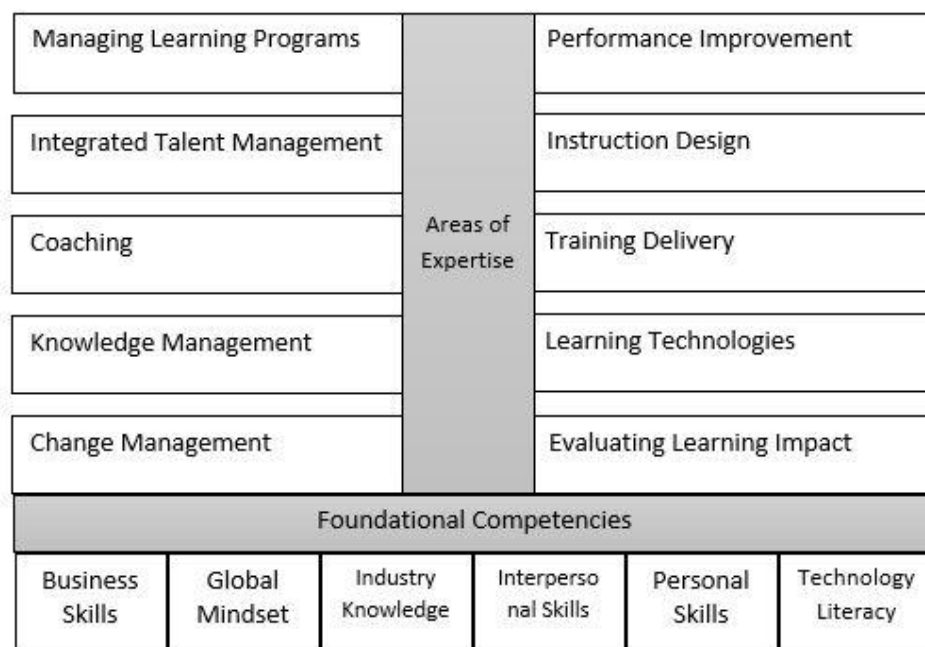


Figure 3. The ATD Competency Model (2014). Adapted from The ATD Model (2014).

Source: <https://www.td.org/Certification/Competency-Model>

Performance improvement. Performance in the HRD context can refer to either employees or organizations. The organizational outcomes are dependent on the nature of performance of its key resource – people (Kim, 2015). ATD (2014) describes performance improvement as the process to “apply a systematic process for analyzing human performance gaps and for closing them”. HRD field has been devoted to assessing employee’s knowledge,

skills, and abilities to govern organizational performance (Kim, 2015; Russ-Eft & Preskill, 2005).

Integrated talent management. According to the 2007 research conducted Chartered Institute of Personnel and Development (CIPD), definition of talent is organization specific with a focus on the individual's capacities which may have implications on the entire group. An integrated talent management approach by the HRD is dedicated to develop and manage the employee knowledge, skills, and abilities and link recruitment, training, and performance management together (Spreitzer & Porat, 2012). The information about employee's skills and competencies can be shared through different departments to borrow and move talent within the organization for sustainable growth (Spreitzer & Porat, 2012).

Change management. The Association for Talent Development defines change management as "Apply a systematic process to shift individuals, teams, and organizations from current state to desired state" (ATD, 2016). Organization development and change management are considered to be the means to implement planned change effectively. "They are concerned with the sequence of activities, processes, and leadership issues that produce organizational improvements" (Cummings & Worley, 2001, p. 3). Depending on the organizational need, change in HRD can have different scope such as individual development, learning, work and life roles, internal adult development, innovation, and goal-directed activity (Swanson & Holton, 2009).

Coaching and mentoring. This is an individual focused training method (Swanson & Holton, 2009). The training is either delivered by one employee to another or a trainer to employee on the job. Coaching is generally defined as a "process of equipping people with

the tools, knowledge, and opportunities they need to develop themselves and become more effective” (Peterson & Hicks, 1995, p. 41). In a mentorship, the mentor is usually an influential senior member in the organization “who has advanced experience and knowledge and who is committed to providing upward mobility and support to careers” (Ragins & Scandura, 1994, p. 962). Mentoring activities are aimed at improving the careers of the mentees by providing role modelling, acceptance and confirmation, counselling and friendship (Kram, 1985). Every employee is assigned a coach or a mentor who assists in the employee’s learning via a structured, semi-structured, or loosely-structured methods (Swanson & Holton, 2009).

Training. In the ATD model (2014), the training function has been divided into separate areas of expertise such as design of training, evaluating learning impact, managing learning program, and knowledge management. Training is a holistic term which includes all these components and has existed as a vital function of HR through the years (Ruona & Gibson, 2004; HR Focus, 2005). Planned learning and development is an important aspect of strategic HRD and is considered to be a necessity in an employee’s work cycle irrespective of their position in the organization (Garavan, 2007). Learning and development is most traditionally performed using a team-focused strategy which puts members of a team under the same roof to deliver training (Swanson & Holton, 2009). According to a study conducted by Gubbins, Garavan, Hogan, and Woodlock (2006), in the health industry, “top managers see training and development as an important way of helping the department achieve its mission” (p. 186). The training must be designed after a careful analysis of needs of the organizations (Morrison, Ross, Kemp, & Kelman, 2010; Brown, 2002). A tool such as learning metrics and analytics must be developed alongside the training design to measure the effectiveness of the program and learning impact (ATD, 2014; Brown, 2002). Human resource development furthers learning and is

responsible to “capture, distribute, and archive intellectual capital to encourage knowledge-sharing and collaboration” (ATD, 2014).

With technology overtaking all the organization’s day to day work, HRD has also updated to provide employees with training opportunities on-the-go. HRD needs to learn enabling technologies to keep individuals and groups connected through environments for knowledge sharing and strategic information flow (Kannan, 2010). A number of studies have been performed which have concluded how virtual HRD has contributed towards the employees leaning and knowledge management to measure performance based outcomes (Bennet, 2009; Bennet, 2014; Chapman & Stone, 2010; Kluge & Reily, 2008).

Learning and knowledge management. According the Association of Talent Development (2014) learning and knowledge management is the process to, “capture, distribute, and archive intellectual capital to encourage knowledge-sharing and collaboration”. Knowledge management supports the learning of employees in organizations by tracking the learning outcomes (Swanson & Holton, 2009). Organizations today track the learning of employees virtually through HRIS systems (Kannan, 2010).

Overlap of HRM and HRD in Literature

When conducting this literature review, an overlap was identified between the HRM and HRD functions. In most organizations, the HRM and HRD functions are not clearly differentiated. This in addition to both functions being situated within the larger umbrella of HR, could impact the employees’ perception of the functions of the two fields. The functions performed within the HRM realm are diverse and can be differentiated based on whether the departments perform administrative activities or developmental activities (Hamlin & Stewart, 2010). In order to establish HRM and HRD as two separate entities, the different roles and

functions performed by HRM and HRD were reviewed separately and critically analyzed. As the focus of this study is on software industries, the relevance and importance of HRD was studied in more detail as compared to HRM. An attempt to identify the differences between HRM and HRD functions by Haslinda (2009) has highlighted the key processes and activities performed by each of them (see Table 1).

Table 3.

Comparison between HRM and HRD (Haslinda, 2009, p. 181).

HRM	HRD
<p>Definition: HRM is a process of managing human talents to achieve organization's objective"</p> <p>Process: Recruitment and selection, Compensation and benefits, Labor and Industrial relations, Safety & Health management</p>	<p>Definition: HRD is a series of organized activities conducted within a specified time and designed to produce behavioral change</p> <p>Activities: Training and development, Performance Appraisals Management, Career planning and development, Change Management</p>

According to McGoldrick and Stewart (1996), HRD is a supplemental function of HRM within HR as they both emphasize on implementing corporate strategy for organizational effectiveness. HRM recruits suitable candidates for the organization and HRD polishes and prepares the candidates to become valuable employees (McGoldrick & Stewart, 1996).

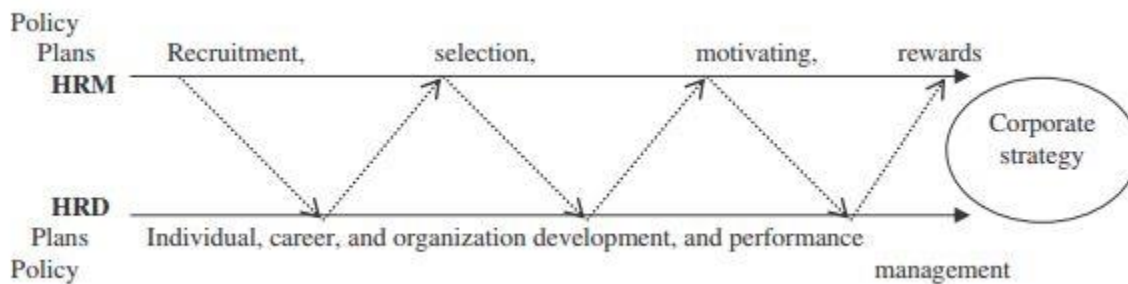


Figure 4. Parallel between HRM and HRD (McGoldrick & Stewart, 1996)

The overlap in the HRM and HRD functions affects HRD when it comes to recognizing the different functions performed within HRD. Training remains the most widely accepted function in the organizations and is not seen as being a part of HRD exclusively. Training is also seen overlapping in the studies related to both HRM and HRD. The other HRD roles and functions such as knowledge management, change management, performance improvement, coaching and mentoring, and talent management take a back seat as the most common focus of research seems to be on training.

HRD Professionals: Roles and Competencies

The different HR roles in the organization are not necessarily performed by only one HR professional. A team of HR professionals conduct and lead dynamic, diverse projects, and projects which require expertise (Gubbins & Garavan, 2005). They have to perform roles of change agent, learning agent, internal consultant, performance engineers, and HRD managers (Gilley & Maycunich, 2003). They have to constantly interact with employees belonging to all cadres; ranging from senior executives to entry-level despite the multiple HR related roles they take on, HR professionals are mostly perceived to perform administrative roles (Mei & Subramaniam, 2014). In the changing business environment, there are a number of emerging trends such as globalization, learning maximization, and social responsibilities and HRD professionals have a role preparing the organization to thrive in them (Bing, Kehrhahn, & Short, 2003). HRD professionals need to be equipped with the skills and experience to deal with challenges these trends may pose.

Ofori et al. (2012) concluded that employees gave greater importance to the roles of HRs when they performed retention of qualified personnel, training and development, and performance appraisals. Another study by Mei and Subramaniam (2014) concluded that HR

professionals did not perceive themselves to be partners in strategic building and development of the organization. They tended to be more involved in the administrative tasks rather than contributing to the organization's development. In some cases when the size of the organization is less than two hundred employees, the management did not feel the need to invest in an HR department (Hamlin, 2007; Vosburgh, 2007). The management believe that HR development skills are not necessary in a small organization and hence they tried to solve their own problems. However, they overlooked the fact that HR professionals can help in setting and achieving the organization's goals through unleashing the power of human capital (Fox, 2013).

Even though HRD professionals are responsible for important employee related functions within an organization, often they are not given functional autonomy (Garavan, 2007). The initiatives undertaken by HRD are supported by the organizational policies, systems, and available resources (Garavan, 2007). As a result, the HRD vision is shaped around the limitations posed by organizational policies, systems, and available resources which leads to questioning the value of HRD in the organization. The implication of working with limitations raises the need of a long-term partnership between HRD and the organization so that they can tend to each other's needs. The HRD policies of collaborative career and organization development needs to be reviewed regularly making sure that it adheres to the organization's goals and mission statement. HRD professionals need to be experts at decision making processes (Chermack, 2003). This expertise is essential to pose an assertive image of the HRD professional. Employees within the purview of the specific HR function must trust the HRD professional in terms of their delivering solutions. If HR professionals do not have a visible confidence and knowledge about their business domain, their expertise and role is put under scrutiny by the employees as well as the

leaders of the organization. The major reason behind this distrust is the non-generation of visible profits by the HR function.

The competency model developed by the Association of Talent Development described ten key competencies required by the HRD professionals to conduct their day to day activities (2014). These include Change Management, Performance Management, Instructional Design, Training Delivery, Learning Technologies, Evaluating Learning Impact, Managing Learning Programs, Integrated Talent Development, Coaching, and Knowledge Management. The efficiency in performance of these activities played a role in understanding what the employees perceive their HRD department to be capable of. These competencies are essential for HRD professionals to prepare the organizations to adapt to emerging trends and sustain themselves in a competitive environment.

HRD in the Software Industry

Software organizations employ knowledge-intensive employees who contribute towards creation of intellectual products. The executive level employees in such an establishment perform the task of providing conditions for the creation of intellectual products (Zavyalova & Kosheleva, 2013). The role of HRD in such an institution is to develop tools to foster the development of required intellectual benefit (Zavyalova & Kosheleva, 2013). In an era of global competitiveness, HRD is often considered as a critical link between human resources and organizational survival (Dubois & Rothwell, 2004).

In a software organization, process innovation and knowledge management are important functions (Bing et al., 2003). Human resource development professionals in such contexts are expected to have some exposure to the technical aspects of the industry. However, employees in these settings do not perceive HR professionals to have any knowledge of the critical software

related functions (Bing et al., 2003). The actual skills possessed by the human resource professionals are thus overlooked and their skill sets are expected to be at par with the majority of the population in the organization i.e. software engineers (Mathiassen & Pourkomeylian, 2003). Thus, adapting to the industry's business and trends can help in ensuring that human resource professionals are considered as equals and invited to contribute in the organizations strategic planning and setting goals.

In order to effectively implement the activities which will supplement achieving organizational goals, HRD must ensure active participation of the employees (Blyton & Turnbull, 1998; Garavan & Heraty, 2001; Marchington & Wilkinson, 2002). According to Brockbank and Ulrich (2003), "HR professionals in high-performing firms actively translate (business) knowledge in contributing to strategic decision making, developing competitive cultures, making change happen, and creating market-driven connectivity" (p. 6). Yet, employees do not see HRD professionals as being capable of pivotal contribution. The general perception about HRD professionals is that they perform non-essential administrative functions that are not critical to the competitiveness of the organization.

Perceptions

This analysis will help in justifying the perceptions based on their relevance and importance to the employees in a software organization. Perception is defined as "results of categorization of objects and events in the environment" (Virsu & Vanni, 2001). In the past, many researchers have conducted perception studies of employees towards management, leadership, commitment, and process implementations. Table 4 represents that that many perception studies have been conducted with respect to understanding the perception of employees towards HR roles and functions.

Table 4.

List of perception studies in the HR field

Article	Authors	Year
HR Professionals		
Puerto Rican human resource professionals' perceptions of the concept, practice, and future of human resource development (HRD) in Puerto Rico	Campos, T. M.	2004
The HRD competencies as perceived by the human resource development professionals in banks in Cote d' Ivoire	Konan, A. Z.	2010
Perceived competencies needed by HRD managers in Korea	Yang, J. C.	1994
Managers		
Managers' perceptions of strategic HR change	<u>Skinner, D.</u> , <u>Mabey, C.</u>	1997
An empirical analysis of managerial and non-managerial HRD climate perceptions in SBI and KVB through internal and external comparison: a case study conducted in Andhra Pradesh	<u>Lakkoju, S.</u>	2014
Employees		
Effects of employees' perceptions on the relationship between HR practices and firm performance for Korean firms	<u>Jang-Ho, C.</u> , <u>Khan-Pyo, L</u>	2013
HR diversity: A study of employees' perceptions in Indian organizations	<u>Kundu, S. C.</u>	2004

A study of perceptions regarding the changing roles, skills, and effectiveness of human resources functions (Dissertation)	<u>Dunn, J</u>	2009
Perceptions regarding the future of the human resource functions within Bayer Polymers and Chemicals (Dissertation)	<u>Kendrick, F. O.</u>	2005
Perceptions of the Human Resource Management Function among Professionals: A Ghanaian Study	Ofori, D. F., Sekyere-Abankwa, V., Borquaye, D. B	2012

In the study conducted by Ofori, Sekyere-Abankwa, and Borquaye (2012) on HR functions, the participants were required to rank the HR functions based on their perceived importance for each. The participants were professionals working in Ghanaian organizations. They ranked ‘Recruitment of Qualified Personnel’ as the most important HR function followed by Training and Development, Retention of staff, Guidance and Counselling, Health and Safety, Job analysis, Promotion, Benefits, and Recognition. The HR professionals themselves also have some perceptions on importance of the different HR roles such as Strategic Partnership, Employee Advocate, and Admin expert (Mei & Subramaniam, 2014). Human resource professionals believe that they must alter their practices so that the employees are more reactive towards these HR initiatives. A strategic approach in the practices must be deployed to get more visibility and a permanent seat in the organization’s strategic decision table. Some perceive the HR roles to be more leaning towards fulfilling the employer’s expectations rather than the employee’s well-being and development (Sayli & Gormus, 2009). In the study conducted by Sayli and Gormus (2009), 74.07% of the respondents believed that HR department should serve as a “balancing point” and the “bridge between employees and managers” (p. 54).

The perceived importance and legitimacy of HRD highly depends on the support of relevant stakeholders in the organization (Gubbins & Garvan, 2005). The attitude from senior management influences the employee perception about the importance of HRD (Gubbins, Garavan, Hogan, & Woodlock, 2006). The study conducted by Gubbins et al. (2006) concluded that employees perceived higher management in their organizations were supportive of HRD activities as opposed to being actively involved in the HRD activities. There is a need for the strategic involvement of the HRD department in the organization to align the goals and ambitions of senior management and employees. Alagaraja (2013), noted that even though HRD was given a seat at the strategic table, the internal customers (such as senior executives and line managers) perceived the role of HRD to be limited to recruitment and employee relations. When these participants were asked about their perceptions of the training functions, they described it to be about “harassment and those type of things” (Alagaraja, 2013, p. 447). Misconceptions about the functions of human resource development is detrimental to the utilization of services offered by the HRD department in the organizations. The HRD department must be equipped to address the business needs of the employees by being involved in the business processes and not only the everyday functional processes. Past studies indicate the importance of demonstrating business competencies by HRD to attract employees to participate in the activities which lead to employee and organizational development. HRD must be able to help the organizations to break these traditional perceptions and develop a different perspective towards them through these demonstrations of business competencies as noted in the ATD 2014 model.

Summary and Conclusion

Given the lack of clear understanding of the functions of HRD and the role these play in the growth of the organization, it is not surprising that employees fail to utilize all the services

offered by the HRD department (Alagaraja, 2013). As a result of being delegated to a supportive role than a critical one within the organization, HRD professionals are denied opportunities to participate in strategic decision making. In most cases, they get stuck performing day to day administrative roles as opposed to communicating and reaching out to employees to engage them in learning and development activities (Mei & Subramaniam, 2014). In a software industry, HRD has an objective to develop employees to respond to the competitive nature of this industry (Zavyalova & Kosheleva, 2013). However, it is important that employees in this industry accept the HRD objective and allow HRD professionals to take charge of knowledge building within the organization. However, trusting HRD professionals with this task will depend on the employee perception towards HRD. Studies listed in Table 4 have highlighted the perceptions of HR professionals, the employee perceptions, and the manager's perceptions towards the importance of different human resource roles. However, there is a gap in literature which does not address the perceptions towards specific HRD related roles and functions. Moreover, this gap can be extended to the software industry as there is lack of perception studies towards the HRD roles and functions in the software industry. This study will bridge this gap by developing an understanding with respect to the perception of software employees towards HRD roles, functions, and professionals.

Chapter 3: Methodology

The study used quantitative methods by using self-administered survey was used for data collection as a strategy of inquiry. The survey was designed using an online-tool – Google Forms. This chapter describes the process of data collection and analysis.

Participants

The participants for this study were the employees working in the software industry across India and the United States. These participants performed technical job roles such as software engineer/executive, technical architect, software project managers, or team leads within their organizations.

A research relationship was established with the study participants to gather data through an online survey. This was done in multiple stages as the participants were not located in the same place and had to be contacted via personal email, and posted notices and personal messages on social media websites such as Facebook and LinkedIn. It was advantageous if the participants have worked in the industry for at least one year and have often interacted with HR. The first stage of establishing a research relationship with the participants was to peruse the personal and professional network of the researcher to identify potential participants working in the software industry. In the second stage, emails and messages through social media were sent to the potential participants with information on the purpose of the research and how the participants will strengthen the research through their valuable participation. In the third phase, the participants who responded to the emails and messages sent in the second phase with acceptance to participate in the study were sent the hyperlink to the survey.

As a student at RIT in the Human Resource Development department, I recognized that former RIT students from the Computer Science, Information technology, Computer security,

and Software Engineering were a high potential pool of participants, in addition to current students with work experience in the industry. In the fourth stage, the RIT alumni and current students were reached through via their department chair and department administrators. An abstract and IRB research approval certificate was presented to the department chair to obtain their approval to gain access to their student database. Upon receiving permission to contact the RIT alumni and current students, a detailed email was sent to the department administrator which included information on the research problem and purpose, an introduction of the researcher, a cover letter explaining methods of how the researcher will maintain confidentiality of data collected, and a link to the online survey (see Appendix B). In the fifth stage, the administrator forwarded this email to all the students in their database explaining the eligibility and value of participation in the survey.

Research Design

This study utilized a cross-sectional survey design to assess the individual perceptions towards HRD roles, functions, and professionals. Cross-sectional studies focus on one group at one point in time (Hagan, 2006; Neuman, 2004; Trochim, 2001). Understanding the initial perceptions of employees requires a cross-sectional survey and will ensure more participation as it takes lesser time for completion. A cross-sectional survey is used when the purpose of the study is descriptive without any hypothesis but the aim is to describe a population or a subgroup within the population (Trochim, 2001). Thus, using a cross-sectional survey will result in eliciting perceptions of software employees at any given time. The purpose of this survey was to understand if the employees perceived HRD as an important functional entity in an organization setting. Since HRD is a new field, it has not completely established its roots in the software industry as a separate department and the human resource department takes care of the generic

developmental needs of the employees such as providing training and knowledge management (Mathiassen & Pourkomeylian, 2003). It is important to understand the employee perception towards effectiveness of these functions so that the employees can participate in them with more conviction.

Research approval. An Institutional Review Board at RIT reviewed the research proposal and survey design before granting permission to conduct the survey research. A consent form was included in the survey for participants to sign off and they were requested to provide their consent before participating in the study after reading the terms, nature, incentives, advantages, and value of participation. The participants were assured that the information they shared about their organization's HRD, will be kept in a password protected database with only the researcher having access to the raw data.

Survey method and administration. Survey, as one of the main quantitative research methods, provides a quantitative or numeric description of trends, attitudes, or opinions of a population by analyzing a sample from a large population (Creswell, 2014). Surveys are the most popular methods of data collection in social sciences to gather information on the participants and their perceptions which are developed based on their ethnography. They become useful to establish trends and practices of a specific function in the organizations. The survey is used in this study to gather data on perceptions of employees towards the HRD function and its components, and further quantify the results for a statistical analysis. The survey was self-administered and was conducted through an online platform. The self-administered survey was fruitful for the study as all the participants were spread through the world and internet was the only technology to keep them all connected. Using a mail survey was not feasible as it was not practical to send and receive mail across countries within the given one month of data collection.

When the participants are spread over such a large area, constraints such as distance, time zones, and cost of communication come into play. The online survey allowed the participants to respond to the survey at a time most suitable for them and ensuring that the researcher receives their responses at a click of a button. Online data collection tools ensured that there was no loss of data by providing embedded and simplified databases for analysis (Lefever, Dal, & Matthíasdóttir, 2007).

The survey methodology was based on the guidelines stated by Lefever, Dal, and Matthíasdóttir (2007). In this research, careful consideration was given to factors such as respondent age, gender, and job role which ensures that the participants are legitimate. According to Lefever et al. (2007), three factors that affected their response rates in online surveys are (1) style of the first page of the survey, (2) relationship with the website/brand, and (3) respondent interest or relevance of the survey (p. 575). Google forms was used to design this survey. An inbuilt theme, background color, and font which reflected an office environment was the chosen style for survey presentation maintain uniformity through all pages. Google is a well-known search engine which has diversified in developing different online tools which are used by individuals for professional and personal tasks. As software professionals are familiar with the Google forms tool, it was used to design the survey for data collection in this study.

Participants belonging to the software industry were sought through personal and professional network of the researcher and were presented with the survey for completion after ensuring their participation eligibility. After the initial contact was established, participants were sent the link to the survey. After one week, a reminder email or social network message was sent to the participants along with the hyperlink to the online survey. To generate a sense of importance, third and fourth (final) reminders were sent to the participants through multiple

media to increase the response rate. A personalized relationship was already present between the researcher and most of the participants enabling a good response rate. A thank you note appreciating the participant's involvement in the study, was sent to all the participants.

Survey design. Individual factors to gain demography related information included 'country', 'gender', 'company name', 'job role', and 'years of work experience in the current role'. The survey was designed based on the ATD Competency Model which describes the key skills and competencies required for a HRD practitioner. The key skills and competencies were used as survey items around which the questions were designed. The survey questions were designed by utilizing these competencies to understand the individual perception towards each of them with respect to their usefulness and effectiveness.

According to Haslinda (2009), employees often find it a challenge to differentiate between HRM and HRD roles. There were twenty-three questions in total of which six questions focused on the participant's demographic details. The survey was designed in a way that the software employees were simultaneously familiarized with different HRD related roles and functions to ensure that they responded to the survey questionnaire consciously. HRM is a widely established and popular department in organizations and employees are aware of the roles it performs such as 'hiring', 'performance management', and 'payroll'. Not all organizations have a separate department which only performs HRD roles such as 'performance improvement', 'coaching/mentoring', and 'change management'. Thus, for clarification, one question about HRM roles and functions was included as a separate question and participants were asked to rank these functions with respect to each other based on their perceived importance and usefulness. The participants were asked to rank 10 HRM functions from 1 – 10 with respect to their

perceived importance. Functions with rank 1 were given the highest weightage and functions with rank 10 were given the lowest weightage.

Out of the remaining sixteen questions, fifteen questions were asked to answer the first research question ‘What are the perceptions of software employees towards HRD roles and functions?’ The last question was focused on answering the second research question ‘What are the perceptions of software employees towards HRD professionals?’ The survey questions were based on the roles, functions, and competencies of professionals adapted from the ATD Model (2014). The first question asked in the HRD category was to know if the participants identified a separate training department in their organization. This was a closed-ended dichotomous question with simple response options of ‘Yes’ or ‘No’. The next question required the participants to rank 6 HRD roles and functions with respect to each other and their perceived importance. Here also the functions with rank 1 was given the highest weightage and functions with rank 6 was given the lowest weightage. A 5-point Likert scale was used to gather responses with scores from 1 – 5, to register the participant’s level of satisfaction towards the effectiveness of any role or function with 5 being the highest level of satisfaction and 1 being the lowest. A score of 5 corresponded to the phrase ‘Strongly Agree’, a score of 4 corresponded to ‘Agree’, a score of 3 corresponded to ‘Neither Agree nor Disagree’, a score of 2 corresponded to ‘Disagree’, and a score of 1 corresponded to ‘Strongly Disagree’.

Validity. Reliability refers to the credibility of research findings (Schwandt, 2001). This survey was measured against several parameters to ensure that the survey findings are reliable. First, the same survey was administered to all the participants ensuring that the data collected is a reflection of experiences for all the participants working in the same industry. Secondly, the survey was designed by borrowing elements of the ATD model which was developed based on

extensive research among HRD practitioners. Only the roles and functions presented in the model were used as a framework for survey questions. (ATD, 2016). This ensured that the roles and functions presented in the survey represent a standard frame of reference and were easy to follow. Thirdly, the language of the survey was easy to comprehend and relevant definitions were provided to avoid any confusion. Validity refers to accuracy of the survey design (Creswell, 2014). The survey in this study was validated before use through a pilot-test. It was administered to 10 participants who were also asked to note any irregularities in the questions. The feedback from these participants about their understanding of the questions, terms, definitions, length, and missing features was implemented before the final roll-out. However, there were still some potential threats to the validity of the survey design. First, respondents may not have sufficient knowledge on the topic as noted in the literature review (Fowler, 2002). For instance, the respondents may not be aware of the different HRD roles and functions to be able to rank them or note their levels of satisfaction. In order to overcome this, definitions were provided in the survey for reference and understanding of specific roles and functions. Simple and everyday terms were used for greater comprehension. Second, the way the response scale is presented may confuse the participants and they may select a completely opposite response option. A Likert scale is standard and option 1 always corresponds to the phrase ‘Strongly Disagree’. In this survey design, every response scale is marked with the corresponding phrase to avoid any uncertainty.

Strengths and weaknesses of the survey design. There were some key strengths in the survey. First, the sample was well selected and only comprised on employees working in the software industry. Second, the research design was validated with respect to the HRD practices in organizations. Third, the survey was easy to participate as it was conducted through a popular

survey tool and most participants must have used this platform to take other surveys in the past ensuring higher familiarity. Fourthly, the areas of expertise and competencies in HRD were selected from the ATD model leading to higher familiarity with the functions among the participants. Yet, there were inherent weaknesses with the survey methodology itself. First, the distribution of participants made it impossible to have any personal contact with them and thus if the participants were unfamiliar with any question, they may be hesitant to contact the researcher and leave the survey in between. Second, survey administration was a challenge due to geographical distances and there were limited sources to contact participants to ensure higher response rate.

Data Analysis

Basic descriptive statistics were used to describe the data. Descriptive statistical information uses numbers to summarize and describe data (Pryzak, 2010). It typically includes percentages, mean, median, ratio, averages, tables, and bar graphs (Pryzak, 2010). In this research, descriptive statistics were used to tabulate demographic data. They were also used to present information in the form of bar graphs to represent the perception of effectiveness of HRD functions with respect to each other.

Chapter 4: Results and Findings

The primary purpose of this research was to understand the perceptions of software employees towards the HRD functions, roles, and the professional competencies of HRD employees. A cross-sectional survey was used to answer the following research questions.

1. What are the perceptions of Software Employees towards HRD roles and functions?
2. What are the perceptions of Software Employees towards HRD professionals?

The survey consisted of 23 questions including 6 demographic questions, 2 ranking questions, 14 questions on perceived effectiveness of HRD roles and functions, and 1 question on perceived effectiveness of HRD professional's competencies.

Descriptive Statistics

Basic descriptive statistics were used to describe the data, including demographic data, and perception of effectiveness of HRD functions with respect to each other. Descriptive statistics was used to analyze data as all the variables used in this survey design are independent. The perception on each independent variable was gathered. The study did not include any dependent variables.

Participants

The data was collected from 100 software professionals from more than 30 different software organizations located in India and United States. The survey was sent out to nearly 300 software professionals in the researcher's personal and professional network, which provided a 33.33% response rate. Survey was distributed through January to February 2016. The researcher made four attempts to contact the software professionals within the sampling frame. The participants were sent an email or message through social media explaining the problem and purpose of the research and request participation. The participants who accepted the request to

participate in the survey were sent a link to the online self-administered survey via email or social media. The participants had to click on the hyperlink provided to access the survey. The survey was a dynamic instrument which allowed the participants to navigate from one question to another in a systematic manner. After registering their responses in the survey and reaching the end, the participants had to submit their survey by clicking on the 'Submit' button. The third and the final contact served as a reminder for participation.

Six items were included in the survey to describe the demographics of the participants. These items included "gender", "job type", "country", and "years of experience". Table 5 below represents the frequencies for these variables. Out of the 100 responses received, 35 respondents were females and 65 were male respondents (see Table 5). The participants performed a range of job roles from Software Executive/Engineer, Team Lead, Manager, Senior Manager, Intern, Consultant, and Chief Technology Officer. While 87% participants worked in the Indian software industry 13% participants worked in the U.S. The survey respondents were majorly in their initial stages of the career. Aldrin reported (2011, p. 26), that nearly 28% of the participants from the software industry changed more than 2 companies over the extent of their careers. In this study, the results indicated that 25% of the participants had less than 1 year of work experience in their current job role, whereas, 70% of the respondents had 1-5 years of experience, and 4% employees had more than 5 years of work experience in their current job role and only 1% participants registered to have been working for more than 10 years. This can be attributed to the trend in software industry where employees are quick to migrate from one job to another depending on, "voluntary attrition, reluctance to make a transition from technical to management positions, lack of managerial skills, difficulties with teamwork, work preferences and maintaining work-family balance" (Agrawal & Thite, 2003, p. 1).

Table 5.

Respondents experience, job role, and location by gender

	Male	Female
Number of years of experience		
< 1 year	19	6
1 year - 3 years	22	15
3 years - 5 years	19	14
5 years - 10 years	4	0
> 10 years	1	0
Job Role		
Software Executive/Engineer	43	29
Team Lead	4	2
Manager	1	0
Intern	7	3
Other	10	1
Location		
USA	11	2
India	54	33

Human Resource Management (HRM)

In the organizations today, HR is most commonly looked at as a function which performs functions of Hiring, Training, Payroll, and Performance management (Hamlin & Stewart, 2010; Haslinda, 2009; Vosburgh, 2007). In this research, an effort is made to establish a difference between HRM and HRD function in the software industry which has been achieved through the

way the questions in the questionnaire are presented and structured. The first question in the survey required to rank the HRM related functions based on the participants' perceptions of their importance. The survey design aimed to give the participants a point of reference to establish a familiarity with the functions pertaining to HRM to distinguish them from the HRD related functions in the questions that follow. The HRM functions included Performance Management/Appraisal, Rewards and Recognition, Career Development, Conflict Resolution, Benefits and Compensation, Payroll, Hiring/Recruitment/Talent Acquisition, Procedural Justice and Distributive Justice, Training, and Employment Laws and Compliance. These functions were chosen based on existing literature (Mayhew, 1985; Smith & Mazin, 2011; Pass & Hyde, 2005).

Perceived importance of HRM functions and roles. The participants perceived Performance management/appraisal as the most important HRM function with 32% participants ranking it as number 1. As noted by Pulakos (2004), the performance management systems are considered the "Achilles' heel" in HRM (p. 1). An employee's discontent over unclear expectations, goals, and absence of feedback directly affects their performance, motivation, and engagement and thus producing a vicious cycle of errors (Pulakos, 2004). Thus, having performance management and appraisal ranked as the most important HRM function in this research contributes to the general consensus among employees today.

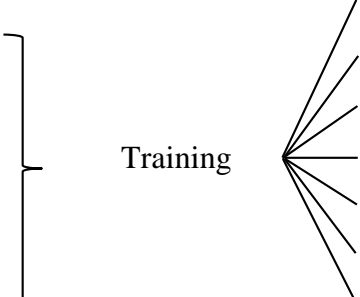
Human Resource Development (HRD)

In the software industry, 87% participants noted that their organizations have an established training and development department and it sustains independently from the HRM department. However, this department may or may not perform HRD related activities as defined by many researchers (Hamlin & Stewart, 2010; Swanson & Holton, 2009; Thomson & Mabey, 1994; Yang, 1994). This research focused on understanding the perception of software

employees towards HRD roles, functions, and professionals and hence more emphasis was put on the HRD related functions. Participants were either asked to rank the HRD functions based on their perceived importance or asked to express their perceived effectiveness towards the performance of HRD functions. The ATD model (2014) represents 10 areas of expertise in the HRD profession. The survey used in this research included questions based on these 10 areas of expertise and 6 foundational competencies expected in the HRD professionals. The areas of expertise were either clubbed or diffused to form the survey questions (see Table 6).

Table 6.

Using ATD areas of expertise to design the survey questions

ATD competencies	Design of Question	
	Rank in terms of perceived importance	State the perceived effectiveness
Knowledge Management Change Management Integrated Talent Management Coaching Performance Improvement	Learning and Knowledge Management Change Management Talent Management Coaching and Mentoring Performance Improvement	Learning and Knowledge Management Change Management Talent Management Coaching and Mentoring Performance Improvement
Instructional Design Training Learning Evaluating Learning Impact Learning Technologies Managing Learning Programs		Design of Training Delivery of Training Evaluation of Training programs Training Feedback Use of Technology in Training Co-ordination of Training Contribution to Career Growth

Perceived importance of HRD functions and roles. The participants were asked to rank the HRD functions with respect to each other based on their perceived importance. Out of the six HRD functions, Learning and Knowledge management (LKM) was ranked as the most important

followed by Talent Management, Performance Improvement, Coaching/Mentoring, Change Management, and Training in decreasing order of importance (see Figure 5).

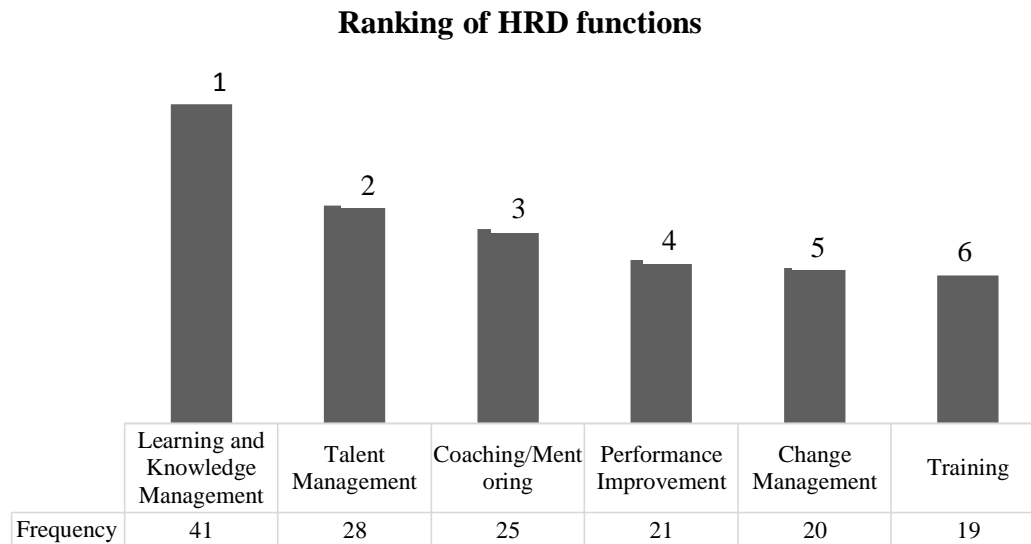


Figure 5. Ranking of HRD functions with respect to each other.

Perception towards effectiveness of performance of functions and roles. A 5-point Likert scale was provided to the participants to register their perceived effectiveness of performance of each of the HRD functions with response options 1 to 5 with the phrases ‘Strongly Disagree’ to ‘Strongly Agree’ respectively anchoring with them.

The responses of participants on the how effectively the Change Management (CM) function was performed was rather surprising, as 44% participants did not have any opinion about this specific function performed. This response corresponds with the observation by Alagaraja (2013), that the employees may not be aware of the different change management activities under process in the organization. It is interesting to note that the 44% of employees who did not offer an opinion on the CM function were new in the industry with less than 1 year experience. This could indicate that the junior employees were not aware of change management or the role of HRD professionals with regard to that or that the junior employees were not

directly involved in the change management process, and therefore, did not have much awareness about this function. Of the 56% who expressed an opinion about CM, 35% participants agreed that it was effectively performed whereas, that 21% considered that HRD professionals did not discharge the change management function effectively.

In contrast to perceptions about CM, there was a greater agreement towards the effectiveness of HRD professionals in handling Talent Management, with 32% participants recording that it was performed effectively. Only 5% participants expressed strong dissatisfaction towards the effectiveness of Talent Management in their organizations. One reason for the high concurrence on effectiveness of HRD professionals with regard to discharging the talent management responsibilities within software organizations could be the high visibility and usage of the function within the industry. Talent Management in bigger organizations is usually carried out with the help of HR information systems (HRIS) where employees can upload their most updated resumes and apply for a better opportunity (Accenture, 2016; Spreitzer & Porat, 2012). Due to the prevalence of 'job hopping' in the software industry, this feature is most commonly used by employees who have been in their positions for nearly 3 years and want to upgrade to managerial positions within or outside the company (Aldrin, 2011; Tambe & Hitt, 2014). However, 14% percent participants with a work experience with more than 3 years have recorded their discontent towards the effectiveness of performance of Talent Management.

While, 32% participants had no views on the coaching and mentoring function in their organization, 40% participants seemed satisfied with the effectiveness of its performance. Coaching and mentoring is mostly performed by direct supervisors or line managers and HRD facilitates its effective implementation (Swanson & Holton, 2009). Analysis of the demographics

of the participants revealed that 50% of the participants who agreed with the effectiveness of coaching and mentoring had been working in their current position for 1 to 5 years. Employees look up to their coaches or mentors when they are at the start of their careers or when they are new to an organization or project as on-the-job training is seen as an effective way of preparing employees for new tasks (Swanson & Holton, 2009).

Performance Improvement deals with setting goals and optimizing processes to achieve the goals to enhance organizational profitability and productivity (Rothwell, Hohn, & King, 2007). HRD professionals can play the role of analysts to understand and counter the causes of bad performance. Employees may be asked to set goals periodically under the supervision of their managers. The achievement of these goals results in an efficient performance improvement process (Rothwell et al., 2007). Forty percent participants in this study seemed satisfied with the effectiveness of performance improvement function in their organizations. However, 26% participants were dissatisfied with the effectiveness of performance improvement. The chart below (see Figure 6) represents the perceptions of participants towards effectiveness of HRD professionals in performing and the critical functions.

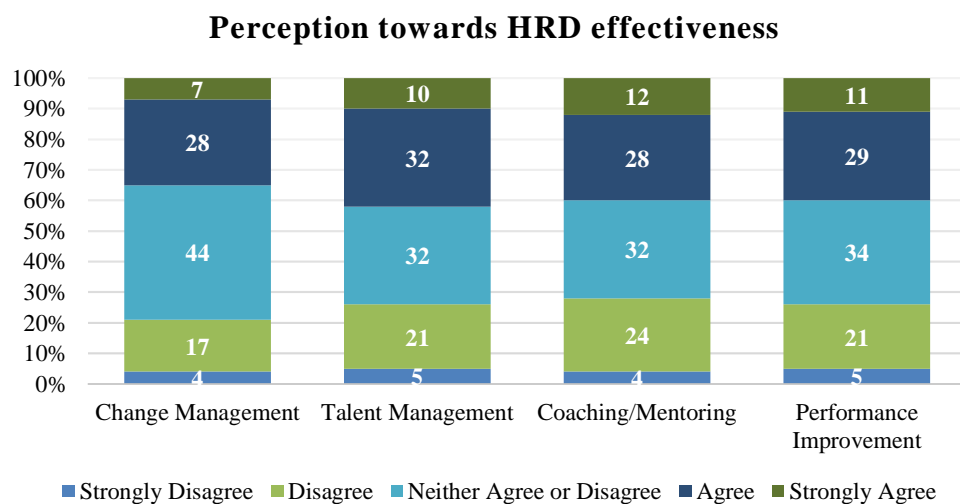


Figure 6. Perception towards HRD effectiveness

“Training and development constitutes the largest realm in HRD” (Swanson & Holton, 2009, p. 226). Every employee undergoes some training during their career cycle. Usually the newly hired or junior employees (with 1 to 5 years work experience) are provided with training on topics such as new employee orientation, compliance training, technology platforms, and different computer languages during their initial years in most organizations or before deploying them onto any project. However, with seniority, the nature of training changes. Training is a continuous process and is carried out in organizations via formal or informal means (Swanson & Holton, 2009). Ofori et al. (2012) concluded in their study that training was perceived to rank as the most important function. However, this function was ranked 6th in importance among the 6 HRD functions by the participants in this study.

In this research study, the training function was diffused into seven different components and the participants were asked to register their perceptions of the effectiveness towards each component – design, delivery, evaluation, feedback, use of technology, co-ordination, and contribution of training to career growth. The goal of training design is to make learning more effective and less difficult (Morrison et al., 2010). The participant’s perception towards the training design showed that 56% participants believe that the design of training that they undergo through is effective. All of these participants have worked in their current positions between 1 to 5 years and as training is relevant to further their careers through formal learning, simplicity of the training design plays an important role in the transfer of learning. Anouli (1993), indicated that the potential for learning transfer is higher in “new job/new workplace” training situation as compared to “old job/old workplace” (p. 123). Further, the data indicates that 18% participants are not satisfied with the training design in their organization. Training in organizations may be delivered in a variety of ways such as formal, informal, online, classroom, coaching, or

mentoring (Peterson & Hicks, 1995; Chao et al., 1992; Swanson & Holton, 2009). Although the survey questionnaire did not focus on any single mode of training transfer, 55% participants were satisfied in the way that training was provided. The effectiveness of training design and delivery is measured through continuous evaluation during the process of design or after the delivery of training (Morrison et al., 2010).

In this research, 48% participants noted that the HRD in their organization evaluated training programs effectively. The most common method of training evaluation is summative as it allows the training department to take feedback from the trainees (Wholey, Hatry, & Newcomer, 2010). However, a detailed study needs to be conducted to understand if the employee feedback towards the training program is implemented in the future training programs. Training co-ordination refers to the different physical elements of a training program such as facilities, supplies, handouts, and seating arrangement (Morrison et al., 2010). These factors play an important role in the employee's learning experience. Fifty one percent participants stated that they were satisfied with the training coordination in their organizations, whereas 17% participants expressed their dissatisfaction. In the software industry, employees most often belong in distributed teams where a part of the team is working from the client location and the remaining team is at the base office. They may be distributed across countries or cities. The use of technology in training plays a significant role in these scenarios where the entire team needs to be trained at the same time or over geographically distant teams. Therefore, it is not surprising that 48% of the participants noted that HRD utilizes technology effectively, while only eight percentage of participants noted that the use of technology was ineffective. The chart below (see Figure 7) demonstrates how the participants of this study perceived the effectiveness of HRD professionals in implementing the six training components.

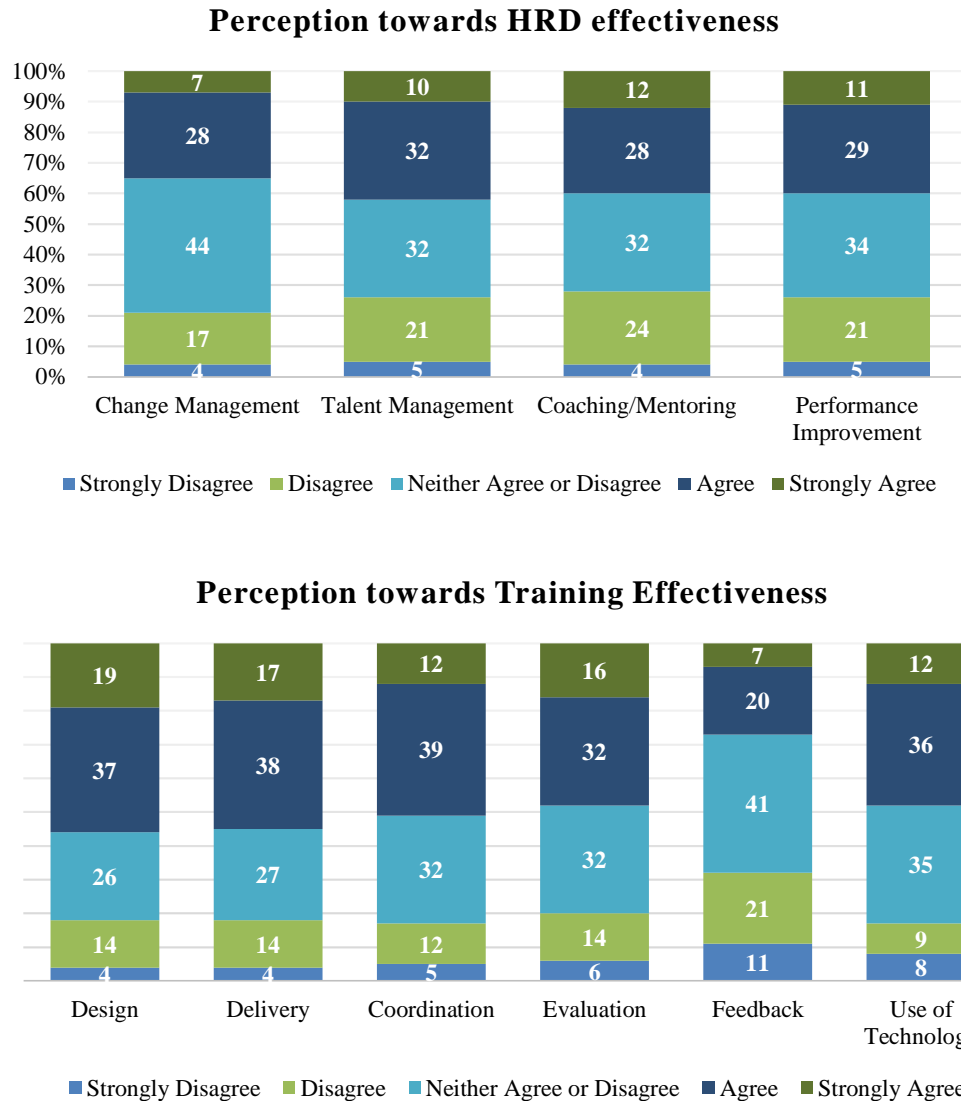


Figure 7. Perception towards Training effectiveness.

Perception towards HRD professional's competencies. The participants were asked if they perceived the HRD professionals to possess the foundational competencies listed in the ATD model. A Likert scale was provided in the survey for the participants to register their perceived satisfaction towards the effectiveness of HRD professional's performance (see Table 7).

Table 7.

Use of ATD foundational competencies to design survey questions

ATD HRD professional foundational competencies	Survey question design	Satisfaction of perceived effectiveness
Business Skills	Understanding Business Needs	59%
	Strategic Thinking	51%
Global Mindset	Sensitivity to cultural differences	59%
	Champion diversity	47%
Industry Knowledge	Awareness of Industry changes and trends	50%
Interpersonal Skills	Trustworthiness	56%
	Maintain clear communication channel	63%
	Demonstrate emotional intelligence	44%
Personal Skills	Demonstrate ethical behavior	72%
	Reliability	57%
	Maintain Confidentiality	66%
	Motivate other	55%

According to Lombardozi (2007), the HRD professionals play a major role in the organization to ensure organizational competence. Human resource development in the organization bears fruitful results when the HRD professionals sit at the strategic table and actively participate in the business's goal achievement (Blyton & Turnbull, 1998; Brockbank & Ulrich, 2003; Garavan & Heraty, 2001; Garavn, 2007; Marchington & Wilkinson, 2002). In order to earn a seat at the strategic table of the organization, it is important that HRD professionals demonstrate business understanding, strategic thinking, and business related awareness (Lombardozi, 2007). The four most important competencies were identified in this research based on the ATD model and imperatives listed by Lombardozi (2007) to help HRD professionals earn a seat at the strategic discussion table. The competencies are understanding business needs, strategic thinking, awareness of industry changes and trends, and sensitivity to cultural differences. The participants have recorded more than 45% satisfaction within all the four competencies (see Figure 8).

Perception towards HRD professional's competencies

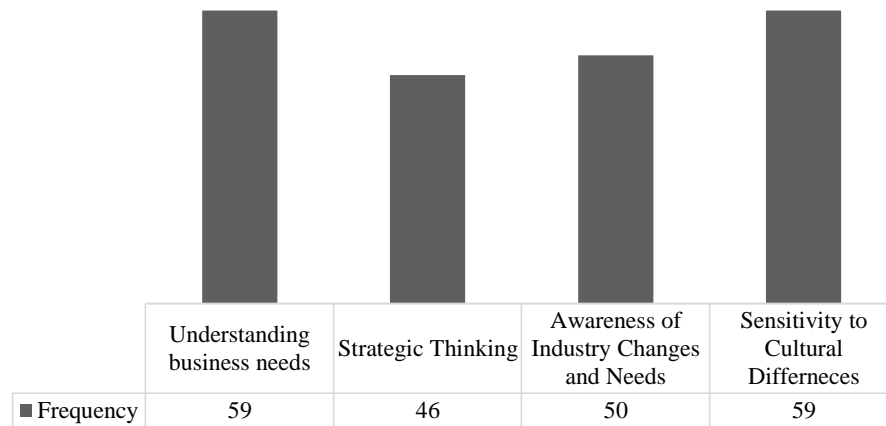


Figure 8. Perception towards HRD professional's effectiveness

The effectiveness of HRD professional's performance in their understanding of business needs and changes in industry is reflected through their competencies of other roles such as maintaining clear communication channels, reliability, trustworthiness, demonstration of ethical behavior, maintaining confidentiality, and ability to motivate others. All of these competencies are considered extremely important as HRD professionals are the enabling factors for open communication and information sharing in the organization (Lombardozzi, 2007). In order to make the employees feel equally included in the organization, prejudice against certain races, gender, and nationalities must be reduced (Bierema, 2010). The perception towards effectiveness of HRD professional's performance and competencies showed a high rate of satisfaction in general. The employees also seemed to be impressed with the cultural sensitivity displayed by HRD professionals as the study recorded 59% respondent's satisfaction towards how HRD professionals champion diversity. Cultural sensitivity among HRD professionals is exhibited through a pleasant and rewarding social climate, training design and delivery on diversity, cross-culture training, employee orientation for deputations abroad, and inclusion of globally placed

employees in the organization structure (Bierema, 2010). HRD practitioners have always exhibited emotional intelligence through the years by showing empathy towards employee issues; at the risk of being stereotyped as a female dominated profession (Patterson, Mavin, & Turner, 2012). The participants in this research study have registered 44% satisfaction towards the efficiency of HRD professionals to demonstrate emotional intelligence.

Conclusion

The analysis of data collected through the survey indicated that overall, the perception towards HRD functions, roles, and professionals is amiable among the software employees. Although, the participants performed different job roles, had different work experiences, or lived in different countries, they all came in contact with the HRD functions and roles in one way or the other. An understanding in the HRM functions and roles indicated that the participants considered performance management and appraisal as the most important function. As concluded by Pulakos (2004) in her study of the importance of performance management and appraisal, the participants in this study also chose this function above any other role performed by human resource management professionals in their organization. In the case of HRD functions, the participants chose learning and knowledge management as the most important function. Learning and management is a comprehensive process of maintaining information about the existing employee competencies and required competencies in the organization (Gorelick & Tantawy-Monsou, 2005). The participants were able to respond to the effectiveness of most functions such as learning and knowledge management, talent management, and performance improvement. However, most participants were not able to respond convincingly towards the effectiveness of functions such as change management and receiving feedback after the training program. Similarly, for the perception towards HRD professionals and their competencies, the participants

seemed satisfied with all the competencies demonstrated by HRD professionals with the highest satisfaction registered in ‘demonstration of ethical behavior’, ‘sensitivity to cultural differences’ and ‘trustworthiness’ and the lowest in ‘demonstrate emotional intelligence’. As long as HRD professionals are able to perform their roles effectively, the software employees will be motivated and satisfied in their individual job roles and understand the role they play in the organization’s achievement of goals.

Chapter 5: Conclusion and Implications

The history and evolution of HRD have played a major role in the development of perceptions towards the different roles and functions encompassed within HRD (Swanson & Torraco, 1994). Today, HRD is still struggling to establish itself apart from the general human resource activities performed in the organizations. HR literature has not clearly identified HRM and HRD as two different entities in the organizations and HR literature demonstrates significant overlap between the functions. Some research has established the functional differences between HRM and HRD which has been furthered through this research study. This study also emphasized on establishing clear differences between HRM and HRD and concluded that HRD is a supplemental function of HRM and works towards polishing the employees to become valuable.

The findings of this study support the existing literature on the importance of specific roles and functions in HRM and HRD. Prior research has highlighted how HRD roles and functions are implemented in organizations and how HRD is still not considered a strategic partner (Alagaraja, 2013). Research has also shown the perceived importance of different HRM and HRD roles and functions. The findings of this study indicate that the perceptions towards the HRD roles, functions, and professionals are influenced by the effectiveness of their performance in the organization. The findings indicate that software employees have some set perceptions towards the HRD roles and functions in terms of their relative importance in the organization. The HRD professionals are the agents to perform HRD roles and functions in the organization and it can be stated that the effectiveness of the HRD professional's performance their job roles, affect the perceptions of software employees. In this study, the participants seemed generally satisfied with the competencies displayed by the HRD professionals.

This study establishes that performance management is perceived to be the most important HRM function and learning and knowledge management is perceived to be the most important HRD function. The past literature raises an increasing concern about HRD still not being considered as the strategic partner in organizations. However, this study establishes that the HRD professionals in the organizations exhibit business skills and have a global mindset to take their organizations forward in the shrinking world.

The findings of this study imply that the academia, practitioners, and researchers cannot measure and define the effectiveness of HRD without understanding the employee's definitions of the roles and functions of HRD. The process of determining the employee's definitions of the different HRD roles and functions may actually require that researchers and focus on the task of defining and describing HRD roles and functions in software organizations. One approach may be to ask the employees how they define different HRD roles and functions as they are expected to utilize the services offered by HRD. If the employees are not able to define the HRD roles and functions, they may not be convinced that utilizing the services will help in their personal and career growth.

Directions for Future Research

Future research proposals should include the qualitative inquiry as an approach for understanding the definitions of HRD by employees in software organizations. For instance several participants did not have definitive responses towards the effectiveness and importance of certain HRD roles and functions. People perceive each role and function differently depending on their own individual interactions with HRD and prior experience. Qualitative inquiry will assist in these subjective perceptions and what led to their formulation. Researchers should also consider collecting data from specific organizations to produce a case study of HRD in a

software organization and also collect data from organizations worldwide. The researchers can further document the understanding of different HRD roles and functions in organizations so that current practitioners can either work around these definitions or demonstrate the actual functional definitions. Further, the researchers can also study how the different roles and functions are performed in the organizations as the performance of the roles may lead to the subjective formulation of perceptions towards HRD roles and functions. The students who aspire to practice HRD as a career, will be greatly benefited through the case studies and working definitions of HRD roles and functions. Academia can introduce students to the research and prepare them to work in an actual work environment which may be different from what they study in their regular coursework.

Further, it is the HRD practitioner's responsibility to exhibit individual competencies so that the software employees seek them for personal and career growth. Since the human resource practitioners have been noted to act as bridges between the management and employees, the HRD practitioners should exhibit their competencies to the executive members of the organization. If the executive management team is persuaded of the important role HRD performs in developing their workforce, they will take the recommendations made by HRD more seriously.

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Appendix

Appendix A: Informed Consent

Introduction:

This is a part of Bhagyashree Barhate's Master's Research Thesis at Rochester Institute of Technology. Your participation in this survey is valuable as you have a rich experience of working in a Software work environment. Your views and opinions will help me gather data and complete my research. This survey has been reviewed according to IRB procedures for research involving human subjects. Your participation in this research study is voluntary.

If you decide to participate you will be asked to fill this online survey which will take approximately 10 minutes.

Benefits of this Study:

The data collected through this survey will inform other research being conducted in the field of Human Resource Development which will help this field to become more agile and responsive towards the employee's needs in a workplace.

Contact:

In case of any doubts or concerns, the researcher can be contacted at -

Bhagyashree Barhate

bvb9064@rit.edu

Incentives:

Three participants will be chosen at random for a \$10 Amazon gift card.

Confidentiality:

Your responses will be strictly confidential and used only for scholarly purposes. Only the primary researcher will have access to raw data.

Informed Consent:

You have the right not to participate at all or to leave the study at any time. Deciding not to participate or choosing to leave the study will not result in any penalty or loss of benefits to which you are entitled, and it will not harm your relationship with your Organization.

Appendix B: Survey

Questions with a star mark (*) are marked as compulsory.

1. Have you read the above stated consent form and would like to continue your participation in this Survey? *

- Yes
- No

2. Name (Optional)

3. Country (Optional)

4. Gender

- Male
- Female
- Other

5. What is your job role? *

- Software Executive/Engineer
- Team Lead
- Manager
- Senior Manager
- Intern
- Other:

6. About how many years have you been in your current role in the organization? *

8. Rank the below given ten Human Resource Management (HRM) functions with respect to each other, based on how important you consider them. 1 - Most Important, 10 - Least Important *

[illegible]

Hiring/Recruitment/Talent Acquisition										
Procedural Justice (fairness in the processes) and Distributive Justice (fairness associated with outcome, decisions, and distribution of resources)										
Training										

9. Rank the below given six Human Resource Development (HRD) functions based on how essential you consider them. 1 - Most Important, 6 - Least Important *

Function/Role	1	2	3	4	5	6
Learning and Knowledge						
Management Change Management						
Talent Management						
Coaching/Mentoring						
Performance Improvement						
Training						

Read the following statements on effectiveness of the HRD Professionals and choose the best option from the given choices.

Scale ranges from:

1 - Strongly Disagree, 2 - Disagree, 3 - Neither Agree nor Disagree, 4 - Agree, 5 - Strongly Agree

10. Learning and knowledge management is performed effectively by the HRD professionals in your organization. *

1 2 3 4 5

11. Change management is performed effectively by the HRD professionals in your organization. *

1 2 3 4 5

12. Talent Management is performed effectively by the HRD professionals in your organization. *

1 2 3 4 5

13. Coaching/Mentoring is performed effectively by the HRD professionals in your organization. *

1 2 3 4 5

14. Performance Improvement is performed effectively by the HRD professionals in your organization. *

1 2 3 4 5

15. The design of training programs offered by your organization is effective *

1 2 3 4 5

16. The delivery of training programs offered by your organization is effective *

1 2 3 4 5

17. The training programs are evaluated effectively by your organization *

1 2 3 4 5

18. After a training program, the HRD professionals provide you with feedback and guide you in applying the learning on your job *

1 2 3 4 5

19. HRD professionals utilize technology effectively to guide and conduct the training effectively *

1 2 3 4 5

20. Training programs are coordinated effectively by the HRD professionals *

1 2 3 4 5

21. Attending training programs contributes towards your career growth. *

1 2 3 4 5

22. The HRD professionals are able to create networking opportunities within the organization. *

1 2 3 4 5

23. The HRD professionals in your organization possess the following skills and characteristic attributes

Competency	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
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Understanding of Business Needs					
Strategic Thinking					
Awareness of Industry Changes and Trends					
Sensitivity to Cultural Differences					
Reliability					
Trustworthiness					
Champion Diversity					
Maintain Confidentiality					
Motivate others					
Demonstrate Ethical Behavior					

Maintain Clear Communication Channels					
Demonstrate Emotional Intelligence					